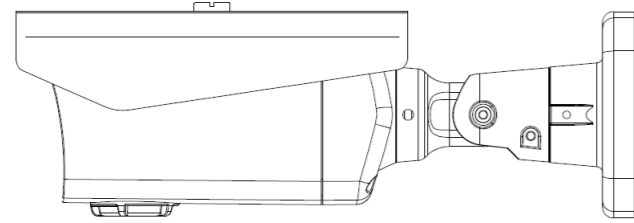




REMOTE ALERT

in71TVI3N2D Series Indoor Outdoor Bullet Camera Quick Start Guide

Rev 0.1



Before operating this product, please read this quick-start guide to ensure proper use. Please store these instructions a safe place for future reference.

FEATURES

- IP68 Die Cast Aluminium Housing
- Sun Shield
- Varifocal lens
- HLM, BLC, WDR
- High Resolution TVI (1080) Analog (1000TVL)
- Sens Up
- 0 Lux IR on, 0.1 Lux
- On Screen Menu
- Wide Dynamic Range
- 3 Axis gimbal
- Wire Management Mount
- 12VDC

PRECAUTIONS

1. Before installing and operating the unit, please read this manual carefully.
2. Precision components are contained in this camera, please avoid violent vibrations during installation and maintenance. Do not connect the power until you have completed the installation.
3. Please obey all local electrical wiring regulations when using this unit.
4. Do not use abrasive or corrosive materials for cleaning. Use only a soft cloth for cleaning.
5. To prevent damage to the lens or sensor, do not point the camera directly into the sun or very strong light sources.
6. Do not use the camera outside it's working temperature (-10°C~ 50°C / 14°F ~122°F) or humidity (<90%) ranges.
7. Ensure that the power supply meets the current requirements of the camera and that the supply voltage is inside the tolerances of the camera: 12vdc ±10%
8. Ensure that the fixings used are adequate to support the load of camera.
9. In case of camera failure, do not attempt to dismantle or service the camera yourself. Please refer to qualified service personnel for repair of the camera.

CONNECTIONS

1. Analog Video (Yellow) BNC Connector.
2. TVI Video (Black) BNC Connector
3. Power Input connector. This is a 2.1mm DC jack. Observe polarity of 12VDC connections. The centre conductor is +12VDC ±10% and outer is ground.. Refer to the diagrams below for clarification.
4. Thumb screw to attached Sun Shield
5. Sun Shield
6. Service Port for Analog Video
7. Focus Screw (Far:Near) Zoom Screw (Wide:Telephoto)
8. Service Cable



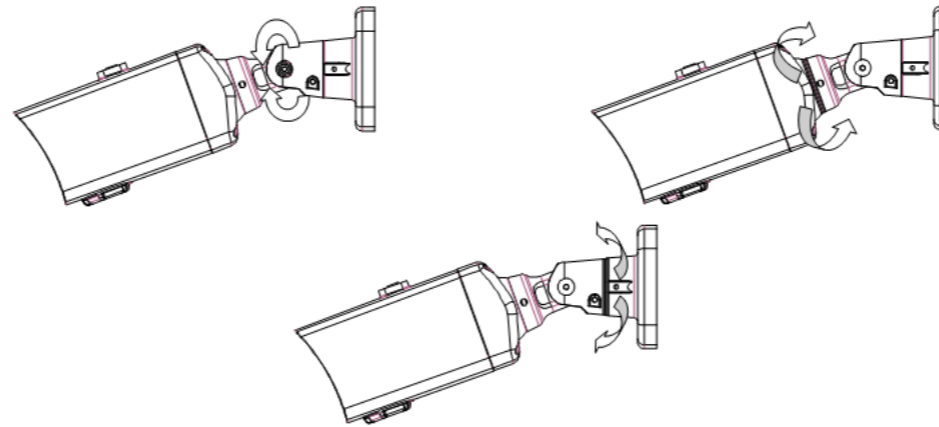
MOUNTING

1. Mark and drill the three mounting holes for the base. Choose an appropriate drill bit for the surface you are drilling in to and ensure that the diameter is correct for the fixings being used. Mark and cut/drill a central 20mm (3/4") diameter hole for the cable and connectors.
2. Use appropriate screws and wall plugs for the mounting surface in use.
3. Ensure that the fixings can adequately bear the weight of the camera.
4. Make the video and power connections and commission the camera.

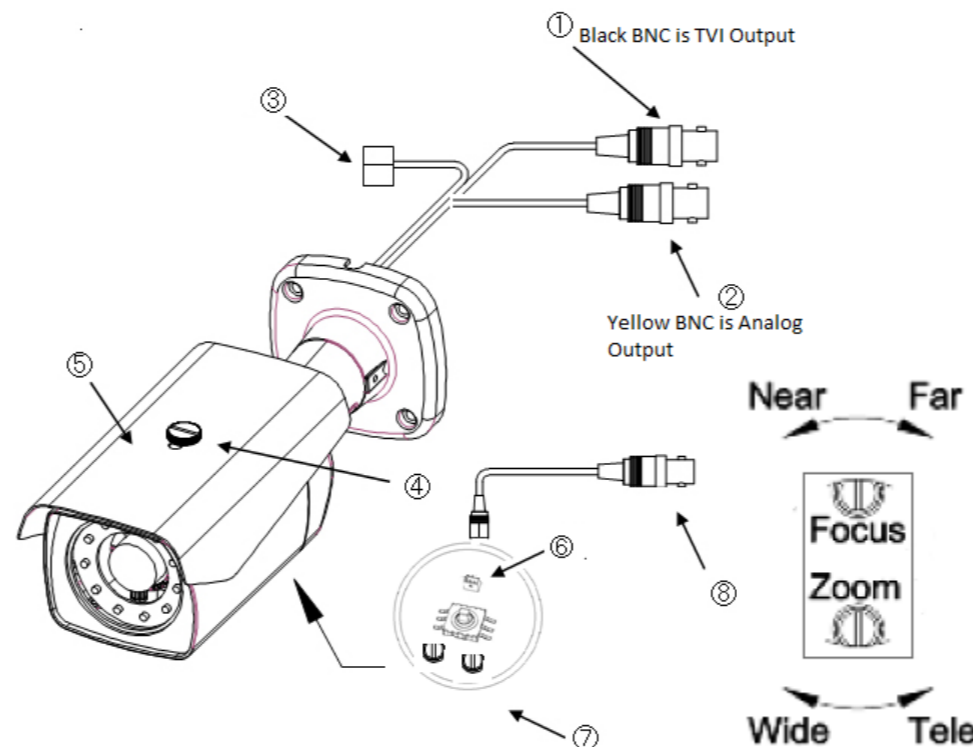
LENS AND POSITIONING

The bullet camera has an integral varifocal lens, a OSD button and Service port (adjusted from the access port on bottom of camera) along with a 3-axis mount which can be manipulated to position the camera.

To position the camera to give the required image content, gently loosen the hex screws located on the main mount to adjust fro pan, tilt , azimuth , gently turn to reach desired position then retighten.



To set lens to correct field of view and focus remove the access plug on the bottom of the camera. See image below. First plug your service cable into the service port (6) then into your monitor. The field of view may then be adjusted by turning the zoom lever (7), and moving until the required field of view is obtained. Next turn the focus lever (7) and adjust to obtain optimum focus. When complete screw the access port onto camera to maintain water seal.



OSD MAIN MENU

Press and hold the enter button to bring up the menu.

When the OSD menu is launched, you are presented with the adjacent opening screen. A menu option followed by a ↵ indicates the presence of a sub-menu. Options set to OFF will not show a ↵ until set to ON

Use RETURN ↵ to return to the previous menu.

MAIN MENU	
EXPOSURE	↵
MODE & COLOR	AUTO
WHITE BALANCE.	↵
IMAGE	OFF
BACKLIGHT	↵
DAY & NIGHT	MIDDLE
DNR	OFF
MOTION	↵
SERIAL	↵
SYSTEM	↵
EXIT	↵

EXPOSURE MENU

EXPOSURE menu:

- **BRIGHTNESS** - Sets the level of the overall brightness
- **SHUTTER**- Auto, Manual, Flicker selection, 1/30~1/30K. Set this on to reduce the exposure time of each image. This can be used to reduce blur in images with fast changing content.
- **SENS-UP** - Select Off to 32x to enhance low light performance. Slows frame rate and increases low light sensitivity. When on shutter cannot be selected
- **AGC- Level Control** -Used to adjust overall gain

EXPOSURE	
LENS	MANUAL
BRIGHTNESS	████████
SHUTTER	AUTO
SENS UP	OFF
AGC	████████
RETURN	↵

MODE & COLOR

MODE & COLOR - TVI

- **COLOR MODE** -Modes 1~4 are available to choose from. Each can be set to give different color impression.

MODE & COLOR	
COLOR MODE	COLOR 4
Y GAIN	16
CB GAIN	128
CR GAIN	128
POSITION	128
BURST FREQ	128
BURST GAIN	90
B&W BURST	ON
RETURN	↵

WHITE BALANCE MENU

WHITE BALANCE - AUTO, AUTO-EXT , PRESET, MANUAL

- **AWB** -AUTO (default) The camera automatically samples the image for optimum white balance
- **AUTO EXT** - The camera automatically samples the image for optimum white balance in an exterior environment.
- **PRESET** - Allows the white balance to be set automatically and locked. This option is normally used when no white reference is present in the image. To set the white balance, hold a white object in front of the camera, with light from the source falling on it and press the joystick to set and lock the white balance
- **MANUAL** - This option allows a selection of color temperature, Red and Blue gain to be manually set in the image. Note, using this option requires care to ensure all cameras on one system have the same color response

WHITE BALANCE	
AWB	AUTO
COLOR GAIN	10 █████
RETURN.	↵

IMAGE

IMAGE

- **SHARPNESS** - Level control
- **Gamma**-Selection 0.45~0.75
- **MIRROR** - Horizontal flip of image
- **FLIP** - Vertical flip of image
- **ACE** -N/A
- **DEFOG** - N/A
- **PRIVACY** - Select up to 15 regions

IMAGE MENU	
SHARPNESS	↵
GAMMA	0.50
MIRROR	OFF
FLIP	OFF
ACE	N/A
DEFOG	N/A
PRIVACY	OFF
RETURN	↵

BACKLIGHT

BACKLIGHT, HLM, BLC, WDR

- **HLM** -is the ability to reverse bright points to black or gray, (areas such as headlights, any high luminance areas) this function will improve the overall picture.
- **BLC** -Backlight compensation, when there is strong backlight behind the object, clear image of the background as well as the object can still be obtained by using BLC function
- **WDR** -Wide dynamic range, improved image by a fusion of high speed shutter of image in light area and low speed image of dark area

MAIN MENU	
EXPOSURE	↵
MODE & COLOR	AUTO
WHITE BALANCE.	↵
IMAGE	OFF
BACKLIGHT	↵
DAY & NIGHT	MIDDLE
DNR	OFF
MOTION	↵
SERIAL	↵
SYSTEM	↵
EXIT	

BLC	
BLS OSD	OFF
H-POS	5
V-POS	6
H-SIZE	8
V-SIZE	5
RETURN	↵

HLM	
LEVEL	█
COLOR	BLK
RETURN	↵

WDR	
WEIGHT	MIDDLE
RETURN	↵

DAY&NIGHT

DAY/NIGHT - AUTO, COLOR, B/W, EXT, EXT 2

- **EXT** - Leave on ext as CDS sensor tells camera when to switch
- **D>N THRES** - Sets day to night illumination change
- **N>D** - Sets the night to day illumination change
- **DELAY** - Select low, middle, high

EXTERN	
D>N THRES	
N>D THRES	
DELAY	LOW
RETRUN	↵

DNR

DNR - OFF, LOW, MIDDLE, HIGH

- This function is used to improve the picture quality by filtering the noise which is generated under low light conditions

MOTION

MOTION - Function of motion can designate the range of the user to detect movement on the screen and adjust the size of the area. So you can monitor movement of an object on the given region more efficiently

- **AREA** -Select area 1~3 to apply motion
- **DET TONE** -Select 0~4
- **MDRECT** - Fill on/off
- **SENSITIVITY**- Level Control
- **MOTION OSD** - Selection to make motion box visible on screen
- **TEXT ALARM** - Alarms in text when motion is triggered
- **SIGNAL OUT** - N/A

MOTION	
AREA	↵
DET TONE	2
MDRECT FILL	ON
SENSITIVITY	9 █
MOTION OSD	ON
TEXT ALARM	ON
SIGNAL OUT	OFF
RETURN	↵

SERIAL

SERIAL

- **CAMERA ID** - 0~255
- **CAMERA ID** - On/Off
- **BAUD RATE** - Selection

SERIAL	
CAM ID	0
ID DISPLAY	OFF
BAUD RATE	9600
RETURN	↵

SYSTEM

SYSTEM -

- **IMAGE SCALE** - Full, Comp, User
- **FRAME RATE** - Select 1080, 720/60 OR 720/30
- **FREQ** - Select 60Hz OR 50Hz
- **LANGUAGE**- ENG, KOR, JAP, CHN,CHN (S)
- **CAM TITLE**- Set camera name
- **FCM MODE**- Focus adj mode
- **FACTORY SET** -Default to factory settings, press and hold for 5 sec

SYSTEM	
IMAGE SCALE	FULL
FRAME RATE	1080 30p
FREQ	60Hz
LANGUAGE	ENG
CAM TITLE	OFF
FCM MODE	30
FACTORY SET	ON
RETURN	↵

SPECIFICATIONS

	System	NTSC
Imaging	Sensor	Mega Pixel Sensor
	Resolution	TVI (1080P) Analog (1000TVL)
	Sensitivity	0 Lux IR On
	Wide Dynamic Range	Yes
	S/N Ratio	52dB
	Day / Night	Mechanical
Lens	Focal Length	2.8~12mm
IR	LED's	8 Super LED's
	Effective Range	100ft
Functions	OSD	Multiple Languages
	Shutter	1/30~1/30,000
	Wide Dynamic Range	Yes
	DEFOG	Yes
	AGC	Adjustable Level
	SENS UP	Adjustable Level
	Electronic shutter	Yes
	Sync	Internal
	Camera ID Number	Off/On 0~255
	White Balance	Auto, Autoext, Preset, Manual
	DNR	Low, Medium, High
	Gamma	0.45, 0.5, 0.55, 0.6, 0.65
	Motion Detection	Yes
	Privacy masking	Off/On , Areas, Color, Position
Image functions	Sharpness, Flip, Mirror, HLM, BLC, WDR	
Input/Output	Video Output	TVI BNC CVBS 1.0Vp-p 75Ω - BNC CVBS 1.0Vp-p 75Ω - Service port
	Programing interface	On board joystick
Power	D Model	12VDC ±10% 7W max
Physical	Construction	Die Cast
	Dimensions (mm)	248.7 x 90.1mm x 104.2
	Weight	998g (2.2lbs)
	Mounting	Surface
Environmental	Operating Temperature	-10°C~+50°C
	Humidity	Less than 90%, non condensing
Order Codes	Lens	2.8~12mm in71TVI3N2D28V12

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Please visit our website for full information: www.remotealert.com